RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	09/647.544A
Source:	IFW16
Date Processed by STIC:	6/24/05

ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 06/24/2005 PATENT APPLICATION: US/09/647,544A TIME: 10:05:20

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 5 <120> TITLE OF INVENTION: INTEGRIN HETERODIMER AND A SUBUNIT THEREOF
 7 <130> FILE REFERENCE: 034341-001
 9 <140> CURRENT APPLICATION NUMBER: 09/647,544A
10 <141> CURRENT FILING DATE: 2000-10-26
12 <150> PRIOR APPLICATION NUMBER: PCT/SE99/00544
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15 <150> PRIOR APPLICATION NUMBER: SE 9900319.6
16 <151> PRIOR FILING DATE: 1999-01-28
18 <150> PRIOR APPLICATION NUMBER: SE 9801164-6
19 <151> PRIOR FILING DATE: 1998-04-02
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40 Leu Pro Leu Val Phe Leu Thr Gly Leu Cys Ser Pro Phe Asn Leu Asp
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44 Glu His His Pro Arg Leu Phe Pro Gly Pro Pro Glu Ala Glu Phe Gly
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99 100 100 100 100 100 111 112 112 113 114 115 116 117 116 117 118	gtg Val l gct Ala gct Ggg Arg Cgc Arg Ggg Ggg Ggg Ggg Ggg Ggg	Ala gco Ala gao Gli tat Tyr 300 ago Ser Cga	a Cys c age a Arc g ctt let 285 c Gl) c tct Ser a ttc g Phe	g cta g cta g Leu g 270 cct n Pro g att g Ile c tto c Phe	Glu 255 ctg ctg cap Ala ctg Ala ctg Leu ttc ctg Phe 335	ggg Gly ggtg Val Ala gtc Val Arg 320 aat Ass	gtt Val cta Leu 305 gaa Glu gtc	gto Val aag Lys 290 ggt Gly att Ile aca Thr	Glr act Thr 275 G Ala Cac His Arc	Ser 260 c gat Asp 5 c tgt Cys c tac Tyr a ct Tyr G G G G G G G G G G G G G G G G G G G	cat His Gag	a gag a gag y Glu g gct a Arg 310 a gcc a Arg 310 a gcc a Ala	g too g too g too g Sen 299 299 G Argo C agt a Sen c too	y Arg	g Programmer 26! E. gat E. gat E. gat G. Asp O. G.	gag o Glu o Gly gaca l Thr a gat g Asp a Sat o Asp a sat o Ile	867 915 963 1011 1059
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9991001 1001 1001 1001 1001 1001 1111 1111 1111 1111 1121 1221 1231 1241 1251 1261 1271 1271 1271 1271 1271 1271 127	gtg Val Val Graph	Ala gcc Ala gag Gli tat Tyr 300 ago Ser Arc	a Cys c age c age c tt let 285 c Gly c tct ser c ttc c Ser c ttc c gca c Ala c gaa	Three ctandards ago	Glu 255 ctg	ggg gtg gtg val gca Ala Val aga Arg 320 aat Arg Asp	gtt Val cta Leu 305 gaa Glu gtc Val cgg Arg	ser gtc Val aag Lys 290 ggt Gly att Ile aca Thr	Glr act Thr 275 gcc Ala Argan Argan ttt	Ser 260 c gat c Asp c tgt c tac c tac c Tyr a act c gag c Gly c Gly c Gly c at c gg c Gly c Gly c at c gg c Gly c Gly c at c gg c Gly c Gly c at c	cat His Gag	g got Alac good Alac got Alac	g too g ag g too g	y Arg	g Programmer 26! 26! 26! 26! 27: 28: 34! 28: 28: 34! 28: 34! 34! 34! 34! 34!	gag o Glu o Gly gaca l Thr a gat g Asp a Sat o Asp a sat o Ile o Ile o gag	867 915 963 1011 1059

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225				750					755					760			0055
												ggc					2355
228	Asn	Thr	Thr	Lys	Pro	Gly	Pro	Val	Leu	Asn	Glu	Gly	Ser	Pro	Thr	Ser	
229			765					770					775				
												ggc					2403
232	Ile	Gln	Lys	Leu	Val	Pro	Phe	Ser	Lys	Asp	Cys	Gly	Pro	Asp	Asn	Glu	
233		780					785					790					
235	tgt	gtc	aca	gac	ctg	gtg	ctt	caa	gtg	aat	atg	gac	atc	aga	ggc	tcc	2451
236	Cys	Val	Thr	Asp	Leu	Val	Leu	Gln	Val	Asn	Met	Asp	Ile	Arg	Gly	Ser	
237	-			_		800	,				805					810	,
239	agg	aaq	qcc	cca	ttt	ata	qtt	cqa	qqt	qqc	cqq	cgg	aaa	gtg	ctg	gta	2499
												Arg					
241	9				815			5	2	820	5				825		
	tat	202	act	cta		aac	aga	aad	паа		act	tac	aat	acq		cta	2547
												Tyr					201
	per	1111	1111	830	Giu	Hall	Arg	цуъ	835	Moli	AIU	ıyı	Pom	840	DCI	пси	
245								~+~		a+~	~~~	- ~ t	ata		aat	020	2595
												agt					2393
	ser	ше		Pne	ser	Arg	ASII		нта	ьeu	Ala	Ser		TIIT	PIO	GIII	
249			845					850					855				2642
251	aga	gag	agc	cca	ata	aag	gtg	gaa	tgt	gcc	gcc	cct	tct	gct	cat	gcc	2643
	Arg		Ser	Pro	Ile	Lys		Glu	Cys	Ala	Ala	Pro	Ser	Ala	His	Ala	
253		860					865					870					
												act					2691
256	Arg	Leu	Cys	Ser	Val	Gly	His	Pro	Val	Phe	Gln	Thr	Gly	Ala	Lys	Val	
257						880					885					890	
259	acc	ttt	ctg	cta	gag	ttt	gag	ttt	agc	tgc	tcc	tct	ctc	ctg	agc	cag	2739
			_						-	-							

Input Set : A:\34341001.app

260 261	Thr	Phe	Leu	Leu	Glu 895	Phe	Glu	Phe	Ser	Cys 900	Ser	Ser	Leu	Leu	Ser 905	Gln	
	atc	ttt.	aaa	aaq		act	acc	agc	agt	gac	agc	cta	gag	aga	aat	aac	2787
										Asp							
265			1	910					915			-		920		•	
	acc	ctt	caa		aac	aca	acc	cag	-	tca	acc	tac	atc	caa	tat	gag	2835
										Ser							
269		200	925	014		****		930				-1-	935		- 2 -		
	ccc	cac		cta	t.t.c	tat	agt.		tat	acc	cta	cac	cac	tat	aaa	att	2883
										Thr							
273	110	940	Leu	Leu		501	945	0_0				950	5	-1-			
	cac		tat	aaa	acc	ctc		ata	aat.	cct	aac		gaa	ttc	aaa	acc	2931
										Pro							
277		110	- 7 -	O ± y		960	110	V 44 1	0-1		965		0_0		-1-	970	
		ctc	add	att	cad		cta	aac	tac	tat		atc	agt	aac	ctc		2979
										Tyr							
281	1111	пси	y	var	975	11011	пса	<b>0 1 1</b>	<b>C</b> 12	980			001	0-1	985		
	atc	tca	acc	ctc		cca	act	ata	acc	cat	aaa	aac	aat	tac		cta	3027
										His							• • • • • • • • • • • • • • • • • • • •
285	110	JCI	mra	990	ЦСи	110	11	· u _	995		0-1			1000			
	tca	cta	tct		atc	atc	act	aac		gca	age	tac			caq	aac	3075
										Ala							
289	DCI		1005	0111	var	110		1010			002		1015		<b></b>		
	cta			ccc	cca	aac			ata	cat	сса	-		ctt	caa	cac	3123
										His							
293		1020	Olu	110	110		1025	110	• • • •			1030	014		<b>4</b>		
			aga	cta	aat			aat	act	cag			ata	ata	aσσ	tac	3171
										Gln							-
	103		*** 3	Lou		1040					1045					1050	
			aaa	caq			aaα	aaa	act	gag		tct	att	aga			3219
										Glu							
301		Lou	Q-1		1055			<b>5-</b> 1		1060					1065		
	agg	cta	at.t.			gaa	ttt	ttc		aga	acc	aaq	ttc	aaq	tcc	ctq	3267
										Arg							
305	5			1070					1075	_		-		1080			
	acq	at.a			acc	ttt	gag			acc	qaa	qaq	qqc	aqt	qtc	cta	3315
										Thr							
309	~		1085					1090	1				1095				
	caq			gaa	acc	tcc	cat	taa	agt	gag	aqc	ctc	ttq	qaq	ata	qtt	3363
312	Gln	Leu	Thr	Glu	Ala	Ser	Ara	Trp	Ser	Glu	Ser	Leu	Leu	Glu	Val	Val	
313		1100					1105					1110					
			caa	aat	atc	ata	atc	tcc	cta	tgg			ata	ggc	aqt	atc	3411
316	Gln	Thr	Ara	Pro	Ile	Leu	Ile	Ser	Leu	Trp	Ile	Leu	Ile	Glv	Ser	Val	
	111!		3			1120					1125			- 1		1130	
			gaa	tta			ctt	act	ctc	ctt		ttc	tqc	cta			3459
320	Len	Glv	Glv	Len	Len	Leu	Leu	Ala	Leu	Leu	Val	Phe	Cvs	Leu	Trp	Lys	
321		1	1		1135					1140			4		1145	-	
	ctt	aac	ttc			cat	aaa	aaa		cct	qaα	qaa	qaa			qaa	3507
										Pro							
J4 T		- Y					-1-	-10						-1-	3		

Input Set : A:\34341001.app

Output Set: N:\CRF4\06242005\I647544A.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:9; N Pos. 9,12
Seq#:11; N Pos. 2,5,14
Seq#:15; N Pos. 1,13,16
Seq#:22; Xaa Pos. 2,6
Seq#:24; Xaa Pos. 2
Seq#:31; Xaa Pos. 10
Seq#:32; N Pos. 3,24,52,55,62,98,118,135,145,151,163,224,233,246,275,364
Seq#:32; N Pos. 406,426,452,467,473,995,1074,1106
Seq#:33; Xaa Pos. 1,2,3,4,6,7,8,10,12,13,14,16,18,19,21,25,28,30,31,33,34
Seq#:33; Xaa Pos. 35,36,40,41,43,44,46,47,49,51,54,55,56,59,61,66,70,72,75
Seq#:33; Xaa Pos. 76,78
Seq#:34; Xaa Pos. 1,3,4,6,8,11,13,16,18,20
Seg#:35; Xaa Pos. 1,4,5,7,8,9,13,15,16
Seg#:36; Xaa Pos. 2,4,6,7
Seq#:37; Xaa Pos. 1,2,5,6,9,12,15,18,19,20,21,24,25,27,28,33
Seq#:38; Xaa Pos. 4
Seq#:39; Xaa Pos. 2,18,29,30,37,43,44
Seq#:40; Xaa Pos. 6
Seg#:41; Xaa Pos. 27
Seq#:42; Xaa Pos. 2,6,58,63,66
Seq#:43; Xaa Pos. 3
Seq#:128; Xaa Pos. 1,2,3,5,6,7,8,10,11,12,13,16,18,20,21,25
Seq#:129; Xaa Pos. 1,2,4,5,6,7,13,15,16,17,18,20,21,24,25,26,27,30,32,35
Seq#:130; Xaa Pos. 6,7,9,11,12,14,16,23,26,28,29,30,31,33,35,36,38,39,40,41
Seq#:130; Xaa Pos. 42,47,48,49,54,55,58,65,66,69,70,71,73,74,76,80,82,83,84
Seq#:130; Xaa Pos. 85,88,90,92,97
Seq#:131; Xaa Pos. 4
Seq#:132; Xaa Pos. 8
Seq#:133; Xaa Pos. 5
Seq#:134; Xaa Pos. 1,2,17,48,53,65,118,123,126,144,148,155,164,205
Seq#:150; Xaa Pos. 49,79
Seq#:207; Xaa Pos. 3,4,6
Seq#:208; Xaa Pos. 4,6,7,8,10,11
Seq#:209; Xaa Pos. 4,5,7,8,9,10,11,13,14,15,18,19,25,29,30,34,36,38,39,40
Seq#:209; Xaa Pos. 42,43,47,48,49,54,56,58,59,60,61,62,63,65,66,69,71,72,73
Seq#:209; Xaa Pos. 77,79,80,84,86,89,93,96,97,100,101,104,105,107
Seg#:210; Xaa Pos. 2,3,5,8,11,12
Seq#:211; Xaa Pos. 1,8
Seq#:212; Xaa Pos. 1
Seq#:213; Xaa Pos. 6,8,14,20,21
Seq#:214; Xaa Pos. 10
Seq#:216; Xaa Pos. 20,25,33,37
Seq#:219; Xaa Pos. 1
Seq#:221; Xaa Pos. 3,7
```

Input Set : A:\34341001.app

Output Set: N:\CRF4\06242005\1647544A.raw

Seq#:222; Xaa Pos. 49
Seq#:245; Xaa Pos. 37
Seq#:247; Xaa Pos. 9

DATE: 06/24/2005

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/647,544A TIME: 10:05:21

Input Set : A:\34341001.app

```
L:1182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:1224 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:1293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:1397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:1430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:1508 \ M:341 \ W: \ (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:1639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
M:341 Repeated in SeqNo=32
L:2033 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
M:341 Repeated in SeqNo=33
L:2105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
M:341 Repeated in SeqNo=34
L:2145 \ M:341 \ W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:2175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:2231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
M:341 Repeated in SeqNo=37
L:2255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:2292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
M:341 Repeated in SeqNo=39
L:2320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:2340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:16
L:2376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
M:341 Repeated in SeqNo=42
L:2412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:3642 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:128 after pos.:0
M:341 Repeated in SegNo=128
L:3703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129 after pos.:0
M:341 Repeated in SeqNo=129
L:3843 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:130 after pos.:0
M:341 Repeated in SeqNo=130
L:3883 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:131 after pos.:0
L:3900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:132 after pos.:0
L:3920 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133 after pos.:0
L:3996 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134 after pos.:0
M:341 Repeated in SeqNo=134
L:4304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150 after pos.:48
M:341 Repeated in SeqNo=150
L:5185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:207 after pos.:0
L:5211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:208 after pos.:0
L:5358 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:209 after pos.:0
M:341 Repeated in SeqNo=209
L:5414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:210 after pos.:0
L:5435 \text{ M}:341 \text{ W}: (46) \text{ "n" or "Xaa" used, for SEQ ID$$\#:211 after pos.:0
L:5451 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:212 after pos.:0
L:5486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:213 after pos.:0
M:341 Repeated in SegNo=213
L:5506 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:214 after pos.:0
L:5551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:216 after pos.:16
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/647,544A

DATE: 06/24/2005 TIME: 10:05:21

Input Set : A:\34341001.app

Output Set: N:\CRF4\06242005\I647544A.raw

M:341 Repeated in SeqNo=216

L:5599 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:219 after pos.:0